NCA
VOC FOR IOP/FN
BACKGROUNDER NO. 5-5746 APRIL 20, 1978
GARY EDQUIST

MICROWAVE LANDING SYSTEM DECISION

ANNCR:

MEMBERS OF THE INTERNATIONAL CIVIL AVIATION ORGANIZATION VOTE (WEDNESDAY) AT A MEETING IN MONTREAL, CANADA TO ENDORSE AN AMERICA-AUSTRALIAN AIRPLANE GUIDANCE SYSTEM. GARY EDQUIST HAS DETAILS IN THIS BACKGROUND REPORT.

VOICE:

THE INTERNATIONAL CIVIL AVIATION ORGANIZATION -- A UNITED NATIONS AGENCY WHICH RECOMMENDS WORLDWIDE STANDARDS FOR CIVIL AVIATION -- IS BACKING THE AMERICAN IDEA FOR MICROWAVE LANDING SYSTEMS RATHER THAN A BRITISH PLAN. (OPT) (WEDNESDAY'S) VOTE IN MONTREAL WAS THIRTY-NINE FOR THE AMERICAN PLAN; TWENTY-FOUR IN SUPPORT OF THE BRITISH PROGRAM; AND EIGHT ABSTENTIONS. (END OPT)

AT ISSUE WAS A TOTALLY NEW WAY TO GUIDE PLANES TO A SAFE LANDING IN ANY TYPE OF WEATHER. THE COMPETING LANDING SYSTEMS ALL USE MICROWAVES -- THOSE EXTREMELY HIGH FREQUENCY RADIO WAVES WHICH ARE NOT BOTHERED BY STATIC OR INTERFERENCE. IN 1972, THE INTERNATIONAL CIVIL AVIATION ORGANIZATION URGED THAT A MICROWAVE GUIDANCE SYSTEM BE DEVELOPED TO REPLACE THE OUTDATED INSTRUMENT LANDING SYSTEM, WHICH HAS BEEN THE WORLDWIDE STANDARD SINCE 1949.

WORKING INDEPENDENTLY, THE UNITED STATES AND AUSTRALIA DEVELOPED SIMILAR TECHNIQUES WHICH CAME TO BE CALLED THE TIME REFERENCE SCANNING BEAM, OR T.R.S.B. FOR SHORT. THE BRITISH, MEANWHILE, DEVISED THEIR DOPPLER SYSTEM FOR MICROWAVE LANDINGS. IN AN EXTENSIVE SERIES OF TESTS WORLDWIDE, BOTH THE BRITISH AND AMERICAN-AUSTRALIAN SYSTEMS WERE ABLE TO LAND AIRPLANES IN ANY TYPE OF WEATHER, AND WERE ABLE TO CONTROL A

GREATER NUMBER OF PLANES WITH FAR GREATER PRECISION THAN COULD THE OLD LANDING SYSTEM. OFFICIALS OF THE U.S. FEDERAL AVIATION ADMINISTRATION MAINTAINED THROUGHOUT THE TESTS THAT THE AMERICAN PLAN WAS MORE RELIABLE THAN THE BRITISH VERSION, AND THAT THE AMERICAN-AUSTRALIAN SYSTEM WOULD COST LESS TO BUY AND INSTALL, PLUS BE MORE VERSATILE IN THE YEARS TO COME.

IT WILL BE AT LEAST TEN OR FIFTEEN YEARS, PERHAPS MORE, BEFORE THE MICROWAVE LANDING SYSTEM COMES INTO WIDESPREAD USE AT THE WORLD'S MAJOR AIRPORTS. IN THE INTERIM, THERE WILL BE TWO INTERNATIONAL LANDING STANDARDS, THE MICROWAVE SYSTEM AND THE OLDER INSTRUMENT LANDING SYSTEM. BUT AIRPORTS THAT QUICKLY ADOPT THE MICROWAVE SYSTEM WILL PROBABLY EARLY THE BLESSINGS OF PEOPLE LIVING BELOW BUSY RUNWAY LANDING APPROACHES. THE REASON IS BECAUSE THE NEW SYSTEM IS SO ACCURATE THAT PLANES WILL BE ABLE TO REMAIN AT A HIGHER ALTITUDE LONGER BEFORE DESCENDING TO LAND. AND THE MICROWAVE SYSTEM WILL BE ABLE TO GUIDE PLANES AROUND CROWDED SUBURBAN AREAS WHICH SURROUND MANY AIRPORTS. ALL THAT WILL MEAN FAR LESS NOISE FOR PEOPLE LIVING NEAR AIRPORTS.

CLINTON TAYLOR, DEPUTY CHIEF OF THE U.S. FEDERAL AVIATION ADMINISTRATION, AND HEAD OF THE AMERICAN TEAM AT THE MONTREAL MEETING, SAID HE WAS VERY PLEASED BY THE I.C.A.O. VOTE AND ADDED THAT THE AVIATION WORLD WOULD BE BETTER SERVED BY THE DECISION.

JS/PY